

HPV-19, HPV-20, HPV-21, HPV-22, HPV-23, HPV-24, HPV-28, HPV-29, HPV-31, HPV-32, HPV-IP2, and HPV-IP4.

11. (NEW) The serum according to claim 10, wherein said polypeptide is encoded by a human papillomavirus gene selected from the group consisting of E1, E6, E7, L1, and L2.

12. (NEW) The serum according to claim 10, wherein said human papillomavirus gene is E6 or E7.

13. (NEW) An immunogenic composition, comprising a physiologically acceptable pharmaceutical carrier and a polypeptide encoded by a DNA of a human papillomavirus (HPV), wherein said DNA is about 7,000 to about 8,000 base pairs, and wherein said human papillomavirus is selected from the group consisting of HPV-2d, HPV-10b, HPV-14a, HPV-14b, HPV-15, HPV-17a, HPV-17b, HPV-19, HPV-20, HPV-21, HPV-22, HPV-23, HPV-24, HPV-28, HPV-29, HPV-31, HPV-32, HPV-IP2, and HPV-IP4.

14. (NEW) The immunogenic composition according to claim 13, wherein said polypeptide is encoded by a human papillomavirus gene selected from the group consisting of E1, E6, E7, L1, and L2.

15. (NEW) The immunogenic composition according to claim 13, wherein said human papillomavirus gene is E6 or E7.

16. (NEW) A vaccine comprising an immunogenic composition, wherein said immunogenic composition comprises a polypeptide encoded by a DNA of a human papillomavirus (HPV), wherein said DNA is about 7,000 to about 8,000 base pairs, and wherein said human papillomavirus is selected from the group consisting of HPV-2d,

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N.W.
WASHINGTON, DC 20005
202-408-4000